

cannon firing in Walhalla, S. C., in celebration of the presidential election, this being in November, 1884; but soon the sounds were found to issue *from the ground* and from a ridge to the southwest of the mountain. The explosive sounds continued till late in the night. At times they seemed to proceed from the ground immediately under the observers. In early days when bears were plentiful the pioneers said the sounds were caused by these animals rolling small boulders off the mountain sides in search of worms, snails, etc., but the bears have passed and the sounds still continue. Later the sounds were ascribed to "harnts" (haunts or ghosts); two men were murdered in "the sixties" and buried at some unknown point on the "Bald." Some have heard these sounds so near them in the woods that the sound was like that of a falling tree. But ordinarily the sound is like distant firing, as noted above. They are not heard at all times, people having spent the night on the peak and heard nothing. The writer can verify all the statements made above. They are strictly true, and it is with the hope of calling the attention of scientific men to the subject that I present this brief account of the mystery of a mountain.

#### HURRICANE OF SEPTEMBER 6.

In connection with the hurricane of September 6 Mr. Joseph Ridgway, Jr., of St. Thomas, W. I., forwards the following extract from the report of Captain Rusch of the German steamship *Rhenania* from Hamburg, which encountered a severe hurricane September 6-7, N. 31° 45', W. 47° 25':

Up to 6 p. m., September 6, there was no appearance of bad weather; at 11 p. m., wind southeast by east; on September 7, 1 a. m., encountered full force of a hurricane, with wind northeast by north, force 12 on the Beaufort scale; barometer 29.55. At 4 a. m., wind southeast by east; barometer 29.20. At 5 a. m., foretopmast overboard; heavy seas cleared the deck; two officers' staterooms smashed; engine skylights and part of bulwarks washed overboard; one boat smashed; barometer 28.95. At 6:30 a. m., wind at its greatest force during the storm; barometer 28.70. At 7 a. m., wind south by east; barometer 28.75. At 8 a. m., wind southwest. At 11 a. m., wind moderated and at noon wind haddied away. On the 4th Captain Rusch had spoken the English steamer *Wooler*, of London, which was then repairing her engine, probably after having passed through the same storm.

#### METEOROLOGICAL OBSERVATIONS MADE TO DETERMINE THE PROBABLE STATE OF THE SKY AT SEVERAL STATIONS ALONG THE PATH OF THE TOTAL ECLIPSE OF THE SUN, MAY 28, 1900.

By Prof. FRANK H. BIGELOW.

Having regard to the cost of establishing temporary eclipse stations, and the losses to science in case a clear view of the sun is not secured during totality, it is proper to determine as far as practicable the probable state of the sky along the path, with the view of selecting the best sites for the observations. To do this a study may be made of the cloud conditions prevailing annually along the shadow-track for a period of time including the date of the eclipse. Certain areas may show greater tendency to cloudiness than others, and this fact will have some weight with observers in choosing their stations.

The meteorological features are, of course, of too uncertain a nature to make it possible to precisely forecast the type of weather that will occur, because storm conditions in transit over the United States might for the day in question supersede the average normal state prevailing in the eclipse districts.

Attempts to thus give an idea of the probable weather conditions likely to occur have already been made in previous cases, at the suggestion of Prof. D. P. Todd. He claims complete success in Chili in 1893, and a partial success in Japan in 1896. The path of the eclipse in India, January, 1898, is

being similarly studied. The observations in Japan and in India have been made by the Government Services. The eclipse track for May 28, 1900, passes over the Southern States, from New Orleans, La., northeastward to Norfolk, Va., and it will accordingly be surveyed by the United States Weather Bureau for the benefit of the astronomical expeditions.

The plan proposed by Professor Todd has been followed in this investigation as follows: Beginning with May 15, 1897, and continuing until June 15, 1897, so as to include May 28 centrally, observations were made at 66 stations, whose locations are shown on Chart VII, covering quite uniformly the portions of the States of Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Louisiana, over which the track is plotted. The only observations made at stations outside the northern and the southern limits of the path and included are Saluda, S. C., and Athens, Ga. The *general state of the sky* at 8 a. m., 8:30 a. m., and 9 a. m., was noted under the instructions, "observe carefully the state of the sky over the whole heavens, and enter the following notation: 0=sun entirely clear; 1=sun  $\frac{1}{2}$  cloudy; 2=sun  $\frac{3}{4}$  cloudy; 3=sun  $\frac{4}{5}$  cloudy; 4=sun all cloudy." At the same hours the *state of the sky near the sun* was observed using the notation: "0=sun clear from clouds; 1=sun in scattered clouds; 2=sun in a mass of clouds; 3=sun quite invisible." The observers, whose names appear in Table 2, were generally volunteers who did this work at the request of the Weather Bureau. Their cooperation has, therefore, been highly appreciated.

A specimen of the tabulation for Raleigh, N. C., is inserted for inspection as Table 1, but it is impracticable to reproduce the whole set of stations in the WEATHER REVIEW.

TABLE 1.—Observations made at Raleigh, N. C., May 15 to June 15, 1897, by C. F. von Herrmann.

Date.	General state of sky, a. m.			Sky near sun, a. m.			General description of the condition of sky. (Seventy-fifth meridian time.)
	8:00	8:30	9:00	8:00	8:30	9:00	
May 15	4	4	4	3	3	3	Disk of sun just barely visible occasionally between 8 and 9.
16	3	3	2	2	2	2	Disk of sun visible, but through thin to thick cirrus clouds.
17	0	0	0	0	0	0	Considerable haze, but not enough to interfere with astronomical observations.
18	0	0	0	0	0	0	Clear, except a few white cumulus clouds here and there.
19	0	0	0	0	0	0	No clouds, but considerable haze.
20	0	0	0	0	0	0	A little haze.
21	1	2	2	0	1	1	Thin cirro-cumulus over face of sun, 8:25 to 9:35, disk visible.
22	1	0	0	1	0	0	Thin cirrus at 8 a. m., soon disappearing; light haze remained, not thick.
23	0	0	0	0	0	0	Very little haze.
24	3	3	4	1	1	2	Cirro-cumulus.
25	0	0	0	0	0	0	Rather thick haze, approaching fine cirrus in texture.
26	0	0	0	0	0	0	Rather thick haze in vicinity of sun.
27	0	0	0	0	0	0	Cirrus, sun mostly clear of clouds.
28	1	1	1	1	1	1	Cloudy, rainy weather.
29	4	4	4	3	3	3	Cloudy, rainy weather, strato-cumulus.
30	4	4	4	3	3	3	
31	4	4	4	3	3	3	
June 1	1	3	4	0	1	2	Nearly clear at 8 but becoming quite cloudy by 9 a. m.
2	4	4	4	3	3	3	
3	4	4	4	3	3	3	
4	4	4	4	3	3	3	
5	4	4	4	3	3	3	
6	1	1	1	1	1	1	Cloudy, rainy weather, strato-cumulus.
7	4	4	4	3	3	3	Alto-cumulus, cumulus.
8	4	4	4	3	3	3	
9	4	4	4	3	3	3	Strato-cumulus.
10	1	1	1	1	1	1	
11	0	0	0	0	0	0	A few alto-cumulus.
12	2	2	3	2	2	2	Few cirrus, not near sun.
13	0	0	0	0	0	0	Cirrus over face of sun, not obscuring disk.
14	4	4	4	2	2	2	Some haze in vicinity of sun.
15	0	0	0	0	0	0	
Total.	62	64	66	44	44	47	

In order to present the result in compact form, the sums of